54Mbps
USB Wireless LAN Adapter
(WL-167g)



User Guide

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Notices

Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION! You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Reprinted from the Code of Federal Regulations #47, part 15.193, 1993. Washington DC: Office of the Federal Register, National Archives and Records Administration, U.S. Government Printing Office.

Safety statements

Regulatory Information/Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

CAUTION! To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance [20cm] between the radiator and your body. Use on the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

Safety Information

In order to maintain compliance with the FCC RF exposure guidelines, this equipment should be installed and operated with minimum distance **[20cm]** between the radiator and your body. Use only with supplied antenna.

Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

CAUTION! Any changes or modifications not expressly approved in this manual could void your authorization to use this device.

MPE Statement

Your device contains a low power transmitter. When device is transmitted it sends out Radio Frequency (RF) signal.

Safety statements

FCC Radio Frequency Exposure

This Wireless LAN radio device has been evaluated under FCC Bulletin OET 65C and found compliant to the requirements as set forth in CFR 47 Sections 2.1091, 2.1093, and 15.247(b)(4) addressing RF Exposure from radio frequency devices. The radiation output power of this Wireless LAN device is far below the FCC radio frequency exposure limits. Nevertheless, this device shall be used in such a manner that the potential for human contact during normal operation – as a mobile or portable device but use in a body-worn way is strictly prohibit. When using this device, a certain separation distance between antenna and nearby persons has to be kept to ensure RF exposure compliance. In order to comply with the RF exposure limits established in the ANSI C95.1 standards, the distance between the antennas and the user should not be less than [20cm].

RF Exposure

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

About this guide

This user guide contains the information you need to install and configure your ASUS USB Wireless LAN Adapter.

How this guide is organized

This guide contains the following parts:

- **Chapter 1: Product introduction**

  This chapter describes the physical features of the ASUS USB Wireless LAN Adapter. This part also presents the package contents, LED indicators, and recommended network settings.

- **Chapter 2: Hardware installation**

  This chapter provides information on how to install the ASUS USB Wireless LAN Adapter.

- **Chapter 3: Configuration**

  This chapter provides information on the contents of the support CD.

- **Chapter 4: Troubleshooting**

  This chapter contains a troubleshooting guide for solving common problems you may encounter when using the ASUS USB Wireless LAN Adapter.

Conventions used in this guide

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this guide.



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Information that you MUST follow to complete a task.



NOTE: Tips and additional information to aid in completing a task.

WL-167g specification summary*

Standard	IEEE 802.11g
Interface	USB 2.0
Technology	Orthogonal Frequency Division Multiplexing (OFDM) Direct Sequence Spread Spectrum (DSSS)
Data transfer rate	802.11g: 54Mbps with auto-fallback to 48, 36, 24, 18, 12, 9, and 6Mbps 802.11b: 11Mbps with auto-fallback to 5.5, 2, and 1Mbps
Network types	Supports Infrastructure and Ad-hoc networks
Frequency band	2.4 GHz ~ 2.5 GHz
Security	64-bit/128-bit configurable WEP encryption
Operating distance	Indoors @ 11Mbps : 130 ft (40 m) Indoors @ 54Mbps : 80 ft (25 m) Outdoors @ 11Mbps LOS** : 1000 ft (310 m) Outdoors @ 54Mbps LOS** : 200 ft (60 m)
Compatibility	Compatible with IEEE 802.11b and 802.11g devices
Power requirement	USB bus-powered
Supported OS	Windows® 98SE/ME/2000/XP
Software support	Control Center One Touch Wizard Wireless Settings Mobile Manager Site Monitor TroubleShooting

* *Specifications are subject to change without notice.*

** *Line-of-Sight*

The ASUS USB Wireless LAN Adapter operating distance may be shorter if there are walls, barriers, or interferences in the home layout or operating environment.

Chapter 1

This chapter describes the physical features of the ASUS USB Wireless LAN Adapter. This part presents the package contents, LED indicators, and recommended network settings.

Product introduction

1.1 Welcome!

Thank you for choosing the ASUS USB Wireless LAN Adapter!

The ASUS USB Wireless LAN Adapter is an easy-to-install and use wireless LAN adapter. Conforming to IEEE 802.11g standard for wireless local area network (WLAN), the ASUS USB Wireless LAN Adapter is capable of up to 54Mbps data transmission rate using the Direct Sequence Spread Spectrum (DSSS) and the Orthogonal Frequency Division Multiplexing technologies.

The ASUS USB Wireless LAN Adapter also comes with the latest wireless technology developed by ASUS to keep you ahead in the world of wireless computing.

1.2 Package contents

Check the following items in your ASUS USB Wireless LAN Adapter package. Contact your retailer if any item is damaged or missing.

- ☑ ASUS USB Wireless LAN Adapter (WL-167g)
- ☑ USB 2.0 extension cable (type A to type A)
- ☑ USB 2.0 universal joint
- ☑ Neck lace
- ☑ Support CD
- ☑ Quick Start Guide

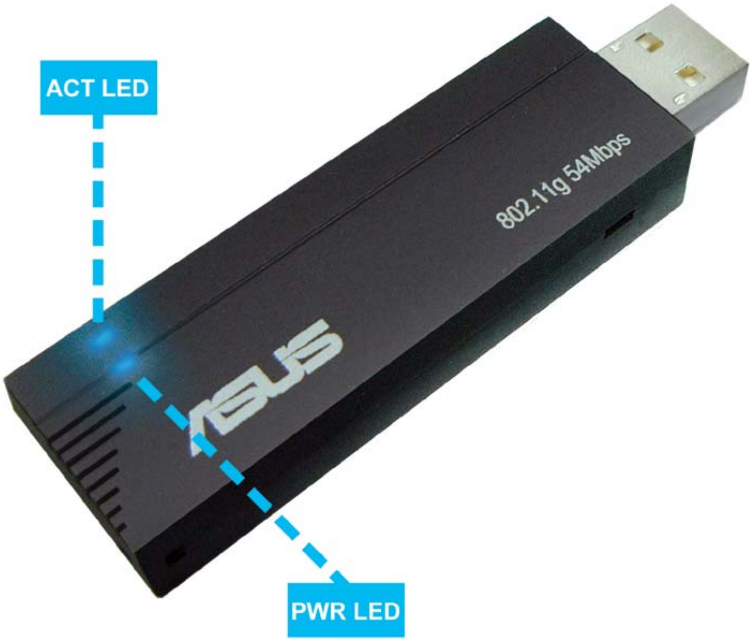
Unless otherwise specified, the term “device” in this User Guide refers to the ASUS USB Wireless LAN Adapter.

1.3 Features

USB 2.0, OFDM, DSSS, Supports Infrastructure and Ad-hoc networks, Compatible with IEEE 802.11b and 802.11g devices, USB bus-powered, Software support

1.4 LED indicators

The device comes with a Power, Activity, and Link LED indicators. Refer to the table below for LED indications.



LED	Status	Indication
PWR	**ON**	The adapter is receiving power from the USB port.
	OFF	The adapter is not receiving power from the USB port. The adapter may be disconnected or the computer is OFF.
ACT	**Blinking**	The adapter is transmitting or receiving data packets.
	OFF	There is no wireless data activity.

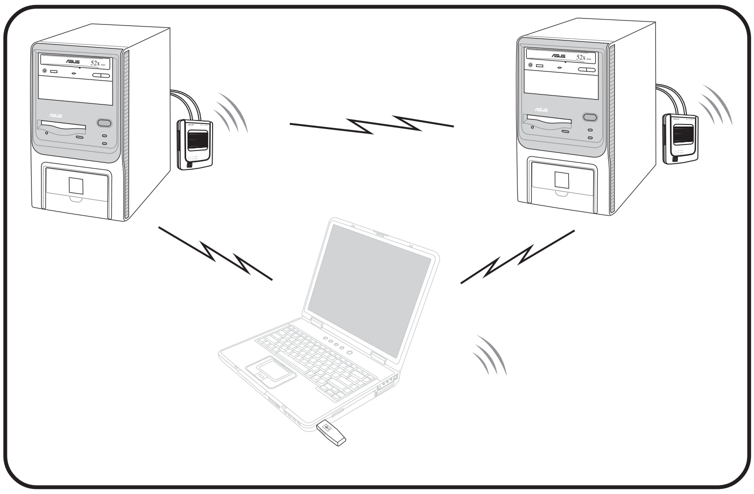
1.5 Network setup

The ASUS USB Wireless LAN Adapter may be used in both Ad-hoc and Infrastructure network types. The following sections decribe the device functions in these network types.

> Determine your network settings before installing the device to avail all its features. The following network settings are recommended.

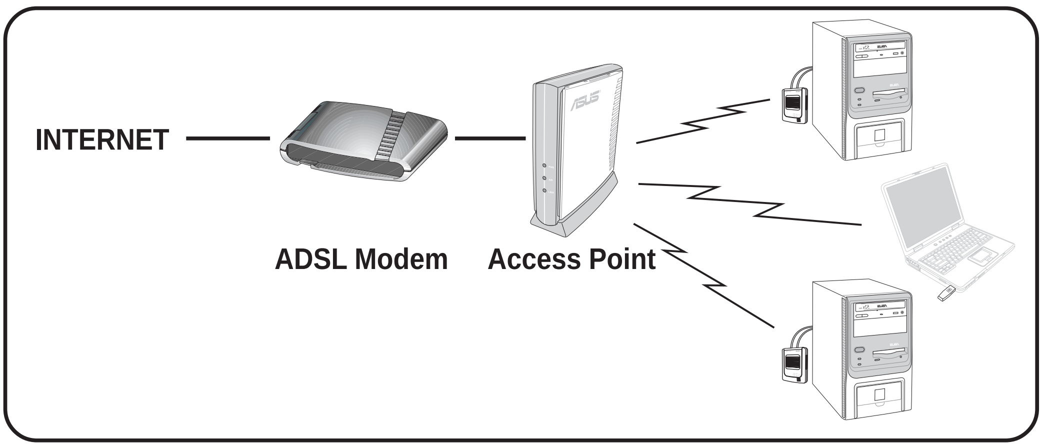
1.5.1 Ad-hoc network

In an Ad-hoc network type, the device connects to another wireless LAN adapter in a wireless network. No access point (AP) is present in this wireless environment.



1.5.2 Infrastructure network

In an Infrastructure network, the wireless network is centered on an access point (AP) that provides a central link for wireless clients to communicate with each other or with a wired network.



Chapter 2

This chapter provides information on how to install the ASUS USB Wireless LAN Adapter.

Installation

2.1 System requirements

Before installing the ASUS USB Wireless LAN Adapter, make sure that your system meets the following requirements:

- Intel® Pentium® 4 or AMD K7/K8 system
- Minimum 64MB system memory
- Windows® 98SE/ME/2000/XP operating system
- Optical drive (for software installation)
- An available USB port (USB 2.0 recommended because USB 1.1 cannot achieve maximum wireless performance)

2.2 Installation procedures

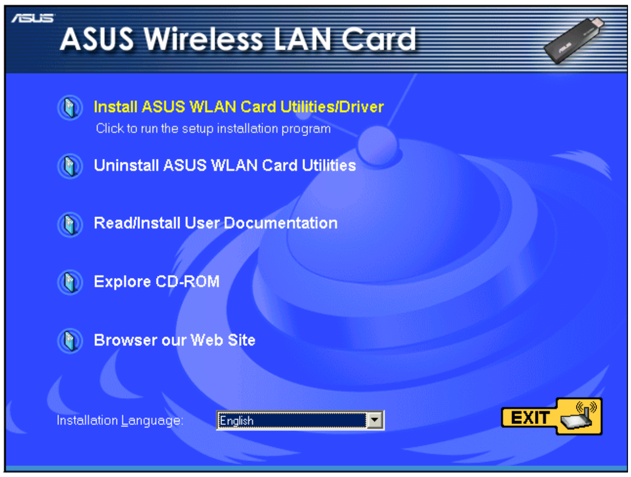
Follow these instructions to install the ASUS USB Wireless LAN Adapter in your computer.

1. Install the device drivers and utilities from the support CD.
2. Connect the device to your computer.

NOTE: You must install the ASUS USB Wireless LAN Adapter drivers and utilities before connecting the device to your computer.

2.2.1 Installing the device drivers and utilities

To install the device driver and utilities in your computer:



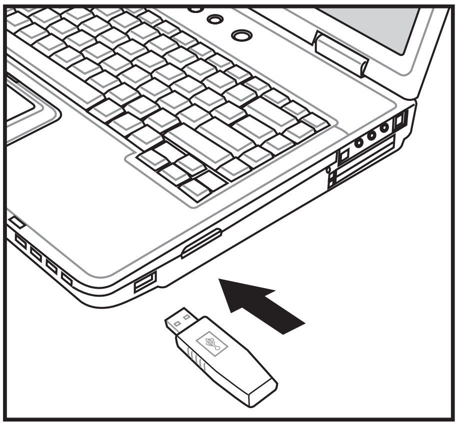
1. Insert the support CD to the optical drive.
2. Click "**Install ASUS WLAN Card Utilities/Driver**" when the ASUS Wireless LAN Card installation window appears.
3. The device drivers and utilities are copied into your computer.

NOTE: If Autorun is NOT enabled in your computer, browse the contents of the support CD and double click the Setup.exe file to run the CD.

* See limitations on page 4-5

Installation procedures (Cont.)

2.2.2 Installing the device



To install the ASUS USB Wireless LAN Adapter in your computer:

1. Insert to any USB port.
2. When “Found New Hardware” dialog box appears, select “Install...automatically” and follow the instructions.

Windows® 2000 users - A **Digital Signature Not Found** dialog box may appear. Click **Yes** to proceed.

Windows® XP users - A **Windows Logo Testing Not Found** dialog box may appear. Click **Continue Anyway** to proceed.

3. After completing installation, configure the ASUS USB Wireless LAN Adapter using **ASUS Wireless Settings**.

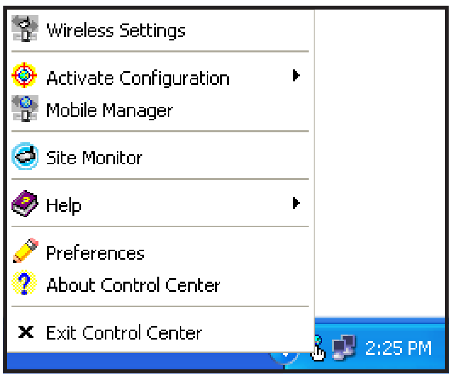
Support Software

Control Center



The Control Center utility is a management software that launches applications and configures network settings. The Control Center starts automatically when the system boots and displays the Control Center icon in the Windows® taskbar. The Control Center icon serves as an application launcher, and indicator of signal quality and Internet connection.

Control Center right-click menu



Right-clicking the Control Center icon displays the right-click menu. The following sections describe the right-click menu utilities.

Chapter 3

This chapter provides information on the softwares and utilities inside the support CD

Software support

3.1 Control Center



The Control Center utility is a management software that launches applications and configures network settings. The Control Center starts automatically when the system boots and displays the Control Center icon in the Windows® taskbar. The Control Center icon serves as an application launcher, and indicator of signal quality and Internet connection.

3.1.1 Control Center icons

The Control Center icon indicates the quality of link to the access point and connection to the Internet. Refer to the table below for icon indications.

Infrastructure network (wireless LAN adapter to an access point)

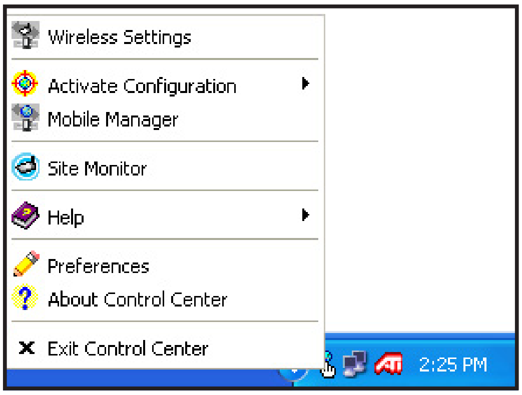
	Excellent link quality and connected to the Internet		Excellent link quality but not connected to the Internet
	Good link quality and connected to the Internet		Good link quality but not connected to the Internet
	Fair link quality and connected to the Internet		Fair link quality but not connected to the Internet
	Poor link quality but connected to the Internet		Poor link quality and not connected to the Internet
	Not linked but connected to the Internet		Not linked and not connected to the Internet

Ad-hoc network (wireless LAN adapter to other Wi-Fi device)

	Linked
	Not Linked
	Connected to the Internet

3.1.2 Control Center right-click menu

Right-clicking the Control Center icon displays the softwares and utilities the ASUS USB Wireless LAN Adapter supports. Refer to the succeeding sections for details on these utilities and softwares.



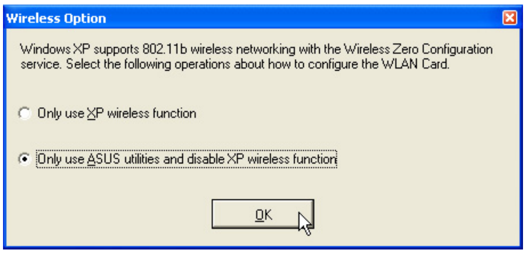
3.1.3 Control Center left-click menu

Left-clicking the Control Center icon displays the left-click menu.



Search & Connect – View available wireless networks within range.

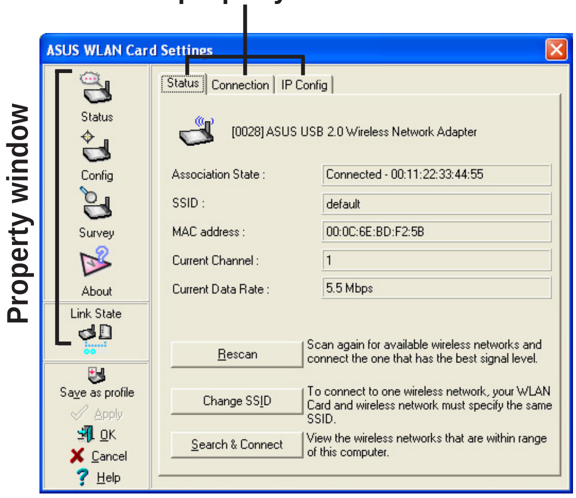
Wireless Option – Sets your Windows® XP wireless networking environment. The **Wireless Option** window appears when you select this option. Select **"Only use ASUS utilities and disable XP wireless function"** to avail all ASUS USB wireless LAN adapter features. Click **OK**.



3.2 Wireless Settings

The Wireless Settings is the main interface that allows you to control the ASUS wireless LAN adapter. Use the Wireless Settings to view the operational and connection status, or to modify the wireless LAN adapter configuration.

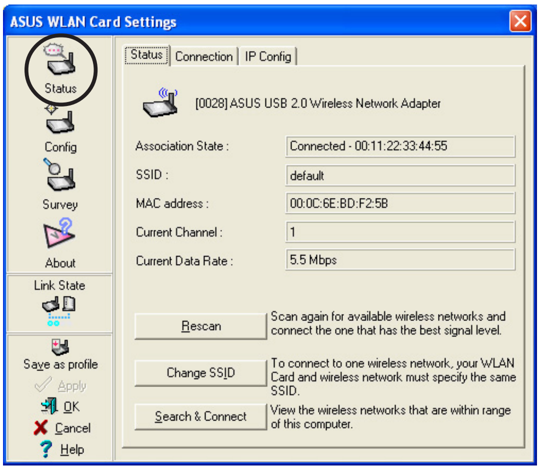
The Wireless Settings window is composed of the property window and tabbed property sheets. Click the icons in the property window to display their tabbed property sheets.



3.2.1 Status

Status tab

The Status tab provides general information on the wireless LAN adapter.



Association State. This field displays the connection status and MAC address of the network where the system is connected.

Service Set Identifier (SSID). This field displays the SSID of the network to which the card is associated or is intending to join. The **SSID** is a group name shared by every member of a wireless network. Only client PCs with the same SSID are allowed to establish a connection.

The **MAC Address** field displays the hardware address of a device connected to a network.

The **Current Channel** field displays the radio channel that the card is currently tuned. The channel changes as wireless LAN adapter scans the available channels.

The **Current Data Rate** field displays the data transfer rate between the wireless LAN adapter and the access point.

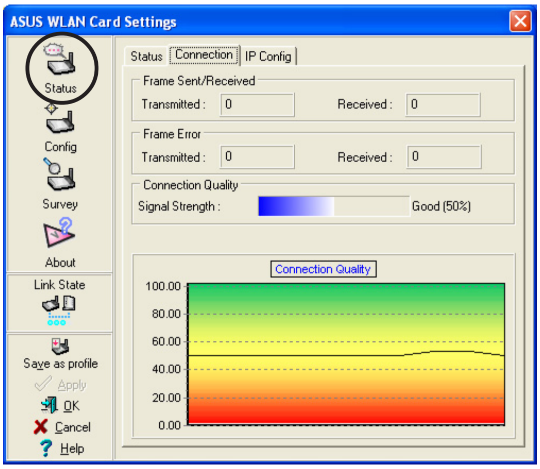
Rescan button - Click to allow wireless LAN adapter to scan available wireless networks and to connect to the network with the best signal quality.

Change SSID button - Click to change the SSID. Clicking this button opens the Config-Basic window. See “Basic tab” on page 3-7.

Search and Connect button - Click to view all wireless networks within the range of your system. Clicking this button opens the Site Survey window. See page 3-9.

Connection tab

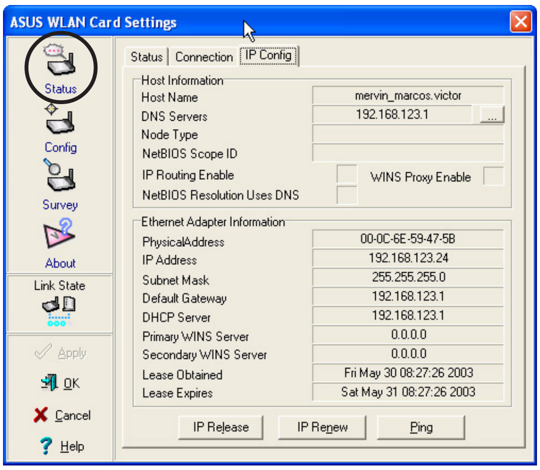
The Connection tab provides real-time information on connection throughput, frame errors, signal strength, link quality and overall connection quality in graphical representation.



IP Config tab

The IP Config tab displays the current host and Ethernet adapter configurations. IP Config displays TCP/IP information including the IP address, subnet mask, default gateway, DNS and Windows Internet Naming Service (WINS) configurations.

Use the IP Config Tab to verify your network settings.



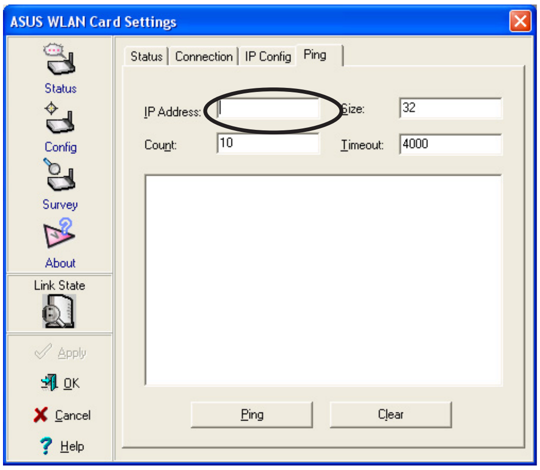
IP Release. Click to release the DHCP IP address for the wireless LAN adapter.

IP Renew. Click to renew the DHCP IP address for the wireless LAN adapter.

Ping. Click to display the Ping tab. Use ping to verify a connection to a particular host name or IP address.

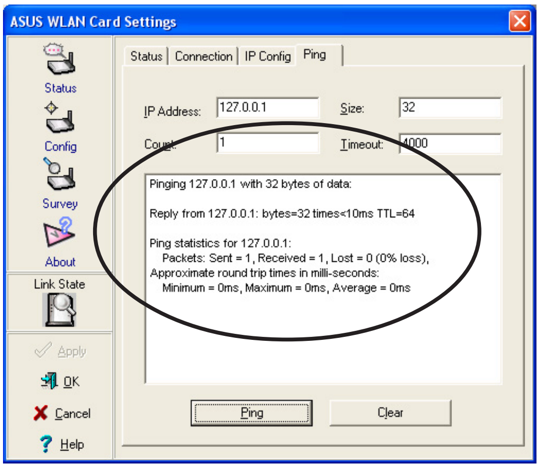
The IP Release and IP Renew buttons may only be used on a DHCP-configured wireless LAN adapter.

Ping tab



The Ping tab allows you to verify the connection of your computer with another computer in a network. To ping a connection:

1. Type the IP address of the connection you want to verify in the **IP Address** field.
2. Configure the ping session by assigning the size and count of packet to send, and the time limit for a ping session to continue (in milliseconds).
3. Click the **Ping** button.



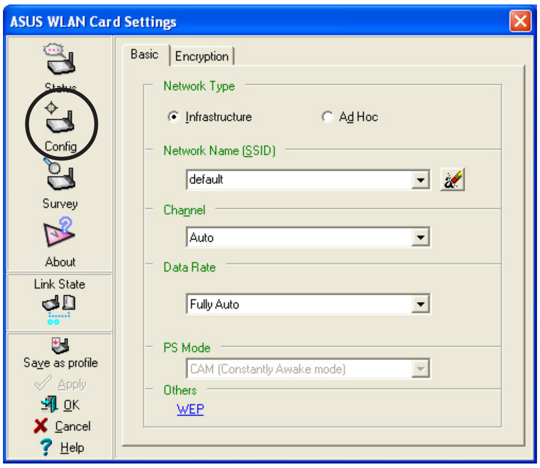
During the ping session, the **Ping** button toggles into a **Stop** button. Click **Stop** anytime to cancel the ping session.

The session field displays information on the verified connection including the roundtrip time (minimum, maximum, and average) and packets sent, received, and lost after a ping session.

Click the **Clear** button to clear the session field.

3.2.2 Configuration

Basic tab



The **Basic** tab provides general information on network types and other configurations.

Network Type. Select the type of network that you wish to use. Select *Infrastructure* mode to establish a connection with an access point (AP). In this mode, your system can access wireless LAN and wired LAN (Ethernet) via the AP. Select the *Ad Hoc* mode to communicate directly with other mobile clients within the wireless LAN adapter range.

Network Name - Displays the network SSID. The network SSID is a string use to identify a wireless LAN. Assign different SSIDs to segment the wireless LAN and increase network security. Set the SSID to a null string to allow your station to connect to any available access point. Null string may not be used in Ad-hoc mode.

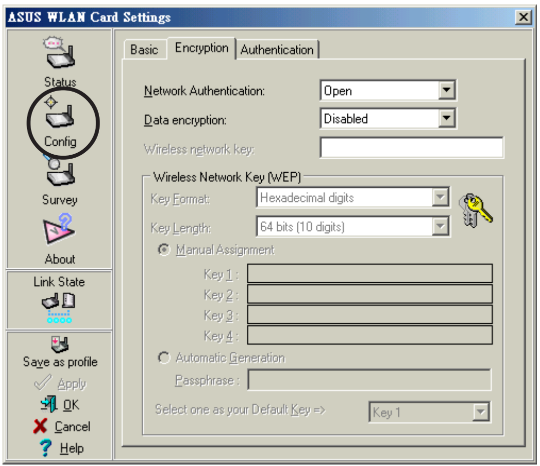
Channel. In Infrastructure mode, wireless LAN adapter automatically tunes in to the access point channel. In Ad-hoc mode, select a channel that is allowed for use in your country/region.

Data Rate. Sets the data transmission rate to Fix or Auto. Select *Fully Auto* to allow the device to adjust to the most suitable connection. You may also fix data transfer rates to 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2 and 1 Mbps.

Note: Operating the device at very high data rates reduces the operating range. When the “Data Rate” is changed, the adapter will survey available APs and connect to the AP with the strongest signal.

Others. Click the *WEP* or *Advanced* link to open the Encryption or Advanced property tab sheet.

Encryption tab



Wireless data transmissions between your wireless LAN adapter and the AP are secured using the Wired Equivalent Privacy (WEP) encryption. Check the *Data encryption (WEP enabled)* option to assign the WEP keys.

Check the *Network Authentication (Shared Mode)* option if you wish to use a network key to authenticate a preferred wireless network. Unchecking this option allows the network to operate on an Open System mode.

Key Format allows you to set a hexadecimal digit or ASCII character WEP key.

Key Length allows you to choose a 64-bit or a 128-bit WEP key. A 64-bit encryption contains 10 hexadecimal digits or 5 ASCII characters. A 128-bit encryption contains 26 hexadecimal digits or 13 ASCII characters.

All wireless clients in a network must have identical WEP keys to communicate with each other or with an access point.

Two ways to assign WEP keys

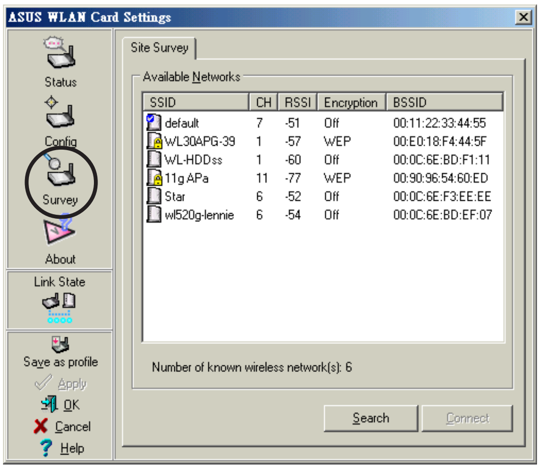
Manual Assignment. For a 64-bit encryption, enter 10 hexadecimal digits (0~9, a~f, A~F) or 5 ASCII characters in each of the four WEP keys. For 128-bit encryption enter 26 hexadecimal digits (0~9, a~f, A~F) or 13 ASCII characters in each of the four WEP keys.

Automatic Generation. Type a combination of up to 64 letters, numbers, or symbols in the Passphrase field. The Wireless Settings utility uses an algorithm to generate four WEP keys based on the typed combination.

- 64-bit and 40-bit WEP keys use the same encryption method and can interoperate on wireless networks. This lower level of WEP encryption uses a 40-bit (10 hexadecimal digits assigned by the user) secret key and a 24-bit Initialization Vector assigned by the wireless LAN adapter. 104-bit and 128-bit WEP keys use the same encryption method.
- After assigning the WEP keys, click **APPLY** to save and activate the encryption. Manually assigned encryptions are more secure than automatically generated encryptions.
- Use Manual Assignment instead of Automatic Generation if you are not sure whether other wireless clients use the same algorithm as that of wireless LAN adapter.
- Keep a record of the WEP encryption keys.

3.2.3 Site Survey

The **Site Survey** window displays the available networks within the wireless LAN adapter range and the following network settings.



BSSID - The IEEE MAC address of the available wireless networks.

SSID - SSID (service set identifier) of the network.

CH - Direct sequence channel used by the network.

RSSI - Received Signal Strength Indicator (RSSI) in dBm.

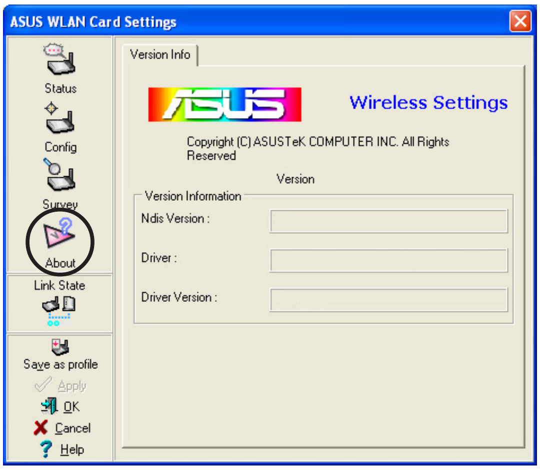
Type - wireless network mode. AP indicates an Infrastructure network type. STA indicates an Ad-hoc network type.

WEP - shows whether a network has an enabled (On) or disabled (Off) WEP encryption.

Select an available network and click **Connect** to establish connection. Click **Search** to rescan available networks.

3.2.4 About Wireless Settings

Click the **About** icon to view the software version, driver version, and copyright information.



3.2.5 Link State

Displays the current connection status of the wireless LAN adapter to the AP or to other Wi-Fi devices. An icons represents the Link State for easy identification. Refer to the table below for icon indications.

Table of Icon Indications

	Excellent link quality (Infrastructure)		Not linked (Infrastructure)
	Good link quality (Infrastructure)		Linked (Ad-hoc)
	Fair link quality (Infrastructure)		Not linked (Ad-hoc)
	Poor link quality (Infrastructure)		Scanning

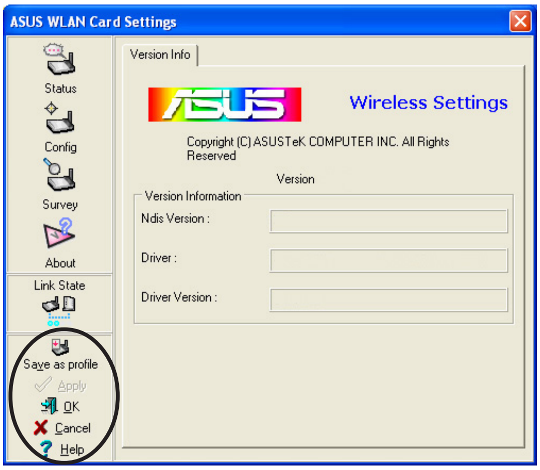
3.2.6 Command icons

Apply. Click to apply the changes made on the Wireless Settings utility.

OK. Click to close the Wireless Settings utility window.

Cancel. Click to cancel any changes made on the Wireless Settings utility. Clicking **Cancel** closes the Wireless Settings utility window.

Help. Click to display the help menu.



3.2.7 Other right-click options

Activate Configuration

This option allows you to select the wireless profile to use.

Mobile Manager

Click this button to launch the Mobile Manager utility. See section 3.2 “Mobile Manager” for details.

Site Monitor

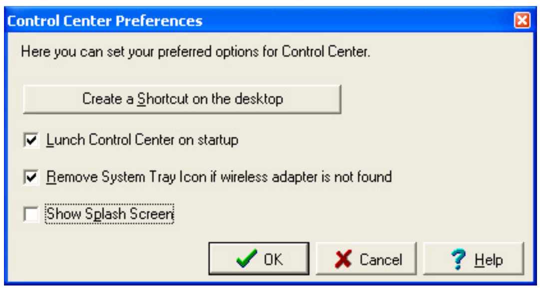
Click this button to launch the Site Monitor utility. See section 3.3 “Site Monitor” for details.

Help Menu

The Control Center utility has a Help menu to guide you in using the Control Center and Wireless Settings utilities. Right-click the Control Center icon, then select **Help**. Select a utility to display the help window.

Preferences

The **Preferences** window allows you to customize the Control Center Utility settings.



About Control Center

Select the **About Control Center** option to display the Control Center software version and copyright information.

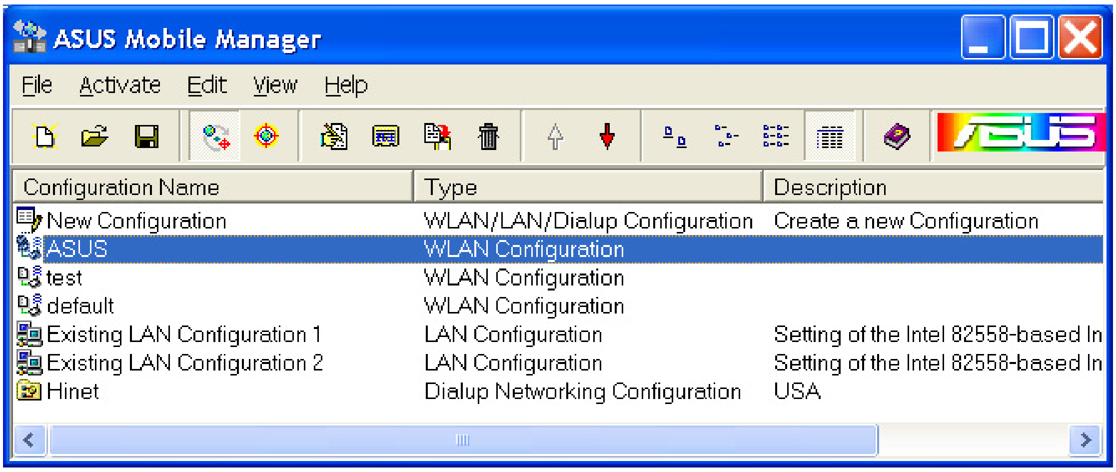


3.3 Mobile Manager

The Mobile Manager is a convenient tool to setup and manage network location settings. This utility allows users to configure multiple alternative configurations for different locations. You need to set up this utility once so you can easily switch configurations when you change your location.

To launch the Mobile Manager utility:

1. Click the Windows® **Start** button. Select **Programs** > **ASUS Utility** > **WLAN Card** > **Mobile Manager**, or right-click the **Control Center** icon on the Windows® taskbar, then select **Mobile Manager.**
2. The Mobile Manager main window appears.



You may use the Mobile Manager utility main window to create, edit, or activate a configuration. The main window displays the menu bar, tool bar, and existing configurations.

The toolbar buttons allow quick access to some common commands in the Mobile Manager utility. All toolbar button commands are also available from the menu bar.

File menu

New Configuration – Select this option to launch the New Configuration Wizard. See the next section for details.

Import Configuration – Select this option to load a configuration from an INI File.

Export Configuration – Save the selected configuration (containing Wireless Settings, TCP/IP Settings, Network Settings, etc.) to an INI file. The INI file may be saved on a floppy disk, and may be imported by other computers with the Mobile Manager utility. You may also use this file as backup.

Exit – Select to close the Mobile Manager utility.

Mobilize menu

Auto Roaming – Activating this option allows the ASUS USB Wireless LAN Adapter to switch to another association you have specified when changes to an existing association occured. If no associations are made, Auto Roaming automatically connects to a wireless network based on your specified configurations.

Activate Configuration – Applies the configuration you selected from the list. Follow the screens instructions to activate a configuration.

Activating a configuration requires system restart when you are using Windows® 98/ME OS. Windows® 2000/XP OS does not require system restart after you activate a configuration.

Edit menu

Edit Configuration – The Edit Configuration option allows you to edit selected configuration items. See the “Editing a Configuration” section on page 3-19 for details.

Rename – Changes the name of the selected configuration.

Copy – Duplicates the selected configuration.

Delete – Discards the selected configuration.

Up – Raises the position of a selected wireless network configuration in the preferred network list.

Down – Lowers the position of the selected wireless network configuration in the preferred network list.

Edit menu commands appear when you right-click a configuration in the Mobile Manager window.

View menu

Large Icons – Displays large icons for each configuration.

Small Icons – Displays small icons for each configuration.

List – Shows a list of available configurations.

Details – Displays the name, type, and description of a selected configuration.

Help menu

Contents – Displays the WinHelp window for online help.

About Mobile Manager – Displays the Mobile Manager version number and copyright information. Click on the ASUS logo to open the ASUS website.

3.3.2 Creating a new configuration

To create a new configuration:

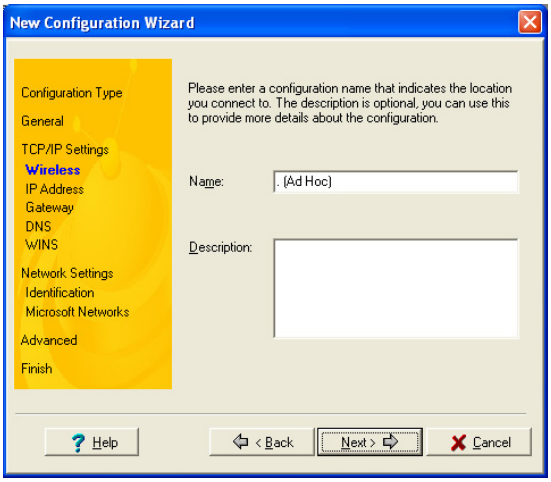
1. Launch the New Configuration Wizard by clicking **File** from the menu bar, then select **New Configuration** from the drop-down menu, or double-clicking the **New Configuration** icon on the Mobile Manager toolbar. The New Configuration Wizard dialog box appears.

2. Choose the type of configuration you want to create. The configuration types are described below. Click **Next** when done.

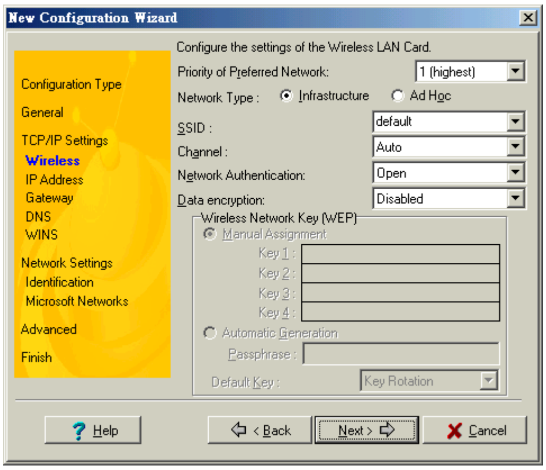


- **ASUS Wireless Local Area Network Configuration.** Select this option if you have an installed ASUS USB Wireless LAN Adapter in your computer.
- **Wired Local Area Network Configuration.** Select this if your computer has an installed network interface card other than ASUS USB Wireless LAN Adapter.
- **Dialup Networking Configuration.** Select this option if your computer has an installed modem.

3. Enter the name and description of the configuration you wish to create, then click **Next**.

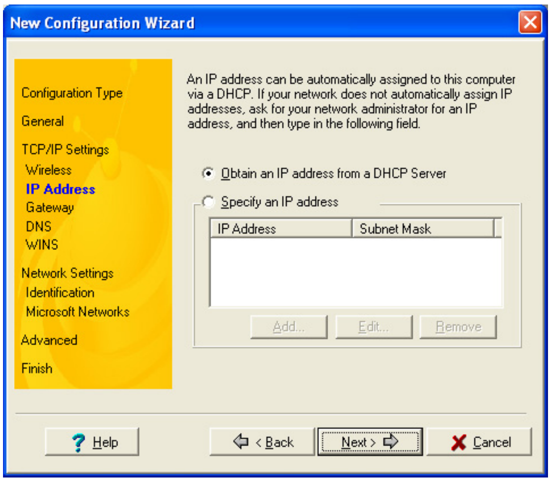


4. Configure the wireless settings including the network type, SSID, channel and WEP encryption. Click **Next** when done.

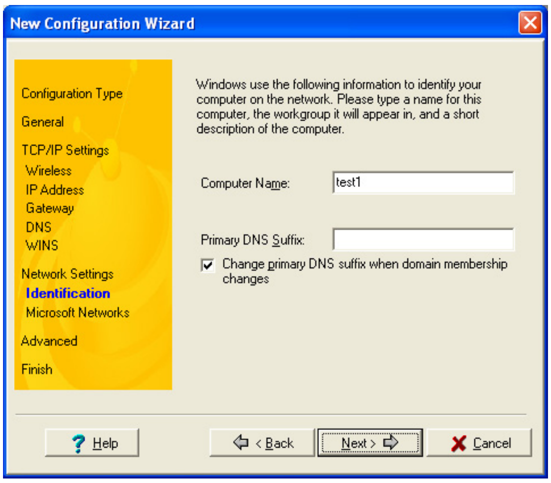


5. Set the IP address of the configuration using this window. Specify the IP address using the DHCP server (automatic) or manual assignment. The wizard auto-detects and displays the current system settings.

   Click **Next** when done.



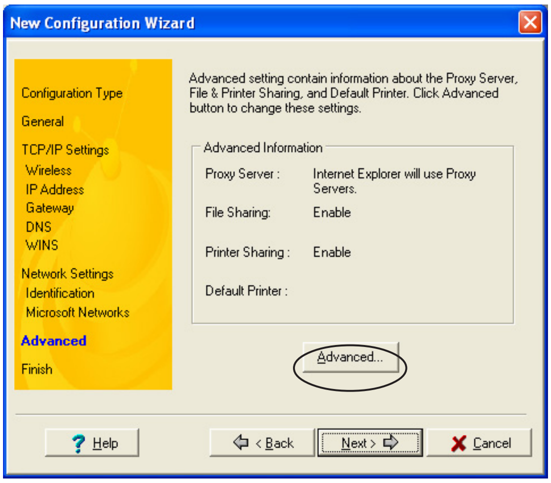
6. Enter the computer name, then click **Next**.



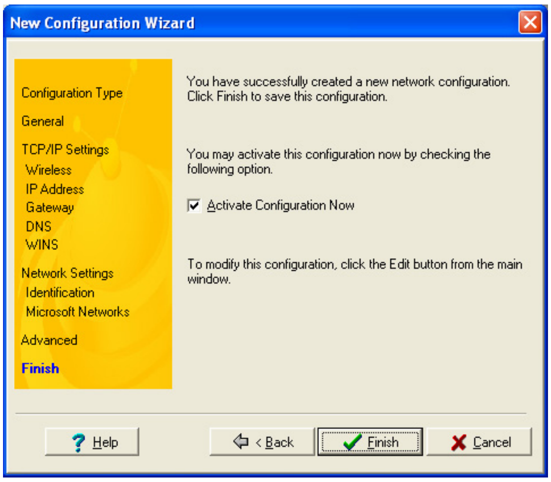
7. Use this window to set the proxy server and printer sharing.

   Click **Advanced** to display the proxy server and printer sharing options.

   Click **Next** when finished.



8. Check the **Activate Configuration Now** option to start using the created configuration. The Mobile Manager window displays the created configuration when it is not activated. Click **Finish** to close the wizard.

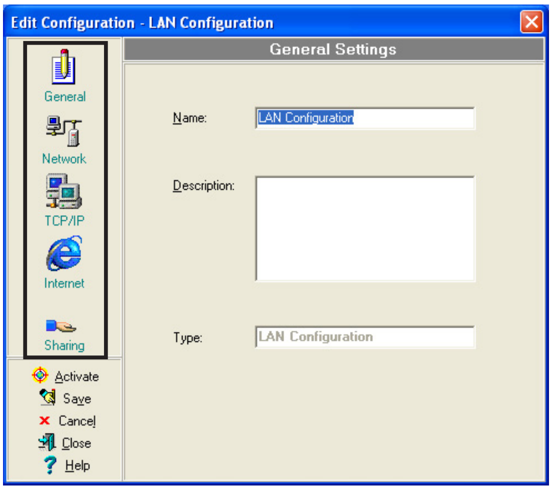


3.3.3 Editing a configuration

To edit a configuration:

1. Select a configuration from the Mobile Manager window.
2. Click **Edit** from the menu bar, then select **Edit Configuration**.

The **Edit Configuration** dialog box appears. Navigate through the windows by clicking the buttons on the left.



General settings

Name – The configuration name indicates the location from where you are dialing or connecting to a network. For example, name your configuration “Work-Meeting Room” if you are using this connection at your workplace meeting room.

Description – Enter additional details of the configuration in this field. This field is optional.

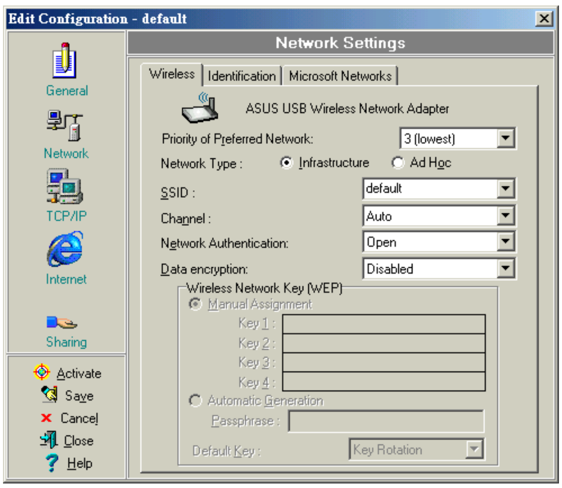
Network settings -Wireless tab

Priority of Preferred Network – This field allows you to select the priority of the preferred network.

Network Type

Infrastructure – Select the Infrastructure mode to establish connection to an access point.

Ad-hoc – Select the Ad-hoc mode to communicate directly with other WLAN devices without using an access point.



SSID – SSID stands for Service Set Identifier, a string used to identify a wireless LAN. You can only connect with an Access Point, that has the same SSID. Use different SSIDs to segment the wireless LAN and add security.

Channel – The Channel field allow you to select the radio channel for the ASUS USB Wireless LAN Adapter. In an Infrastructure network, your wireless LAN adapter automatically selects the correct frequency channel required to communicate with an Access Point.

WEP – This option allows you to disable or enable (64-bit or 128-bit) WEP encryption. The WEP Key is a 64-bit (5 byte) or 128-bit (13 byte) hexadecimal digit use to encrypt transmitted data packets and decrypt received data packets.

Network settings -Identification tab

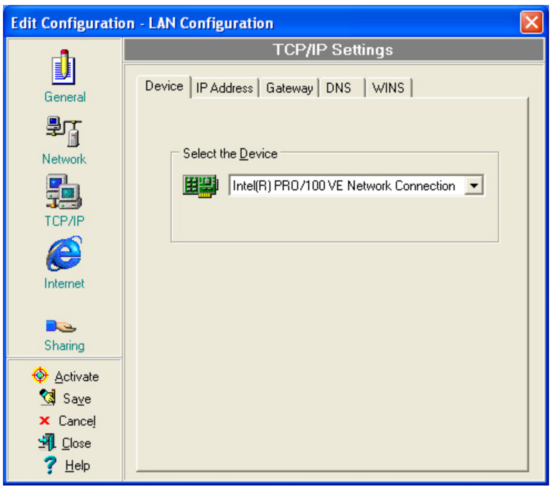
Computer name – Assign your computer a unique name of up to 15 characters. The computer name allows other users in a network to recognize your computer. The computer name is generally the same with the DNS hostname.

Avoid using spaces or symbols in your computer name.

TCP/IP settings-Device tab

Select the network adapter you want to use for this configuration.

This item appears only when you are edtiting a wired LAN configuration.



TCP/IP settings-IP Address tab

Obtain an IP address from a DHCP server – The Dynamic Host Configuration Protocol (DHCP) server assigns IP addresses automatically within a specified range of devices.

Specify an IP address – Ask your network administrator for the IP address and subnet mask you should use. Type in the IP Address and Subnet Mask manually.

TCP/IP settings-Gateway tab

Specify the gateways. You may specify more than one gateway. Set up the primary gateway first.

Add – Click this button to add a new TCP/IP gateway address. The added gateway appears in the **Default gateways** list. Repeat the process to add another gateway. The value in each gateway field must be between 0 and 255. You can have up to eight IP addresses for gateways.

Edit – Click this button to edit a selected gateway address.

Remove – Click this button to delete a selected gateway address.

TCP/IP settings-DNS tab

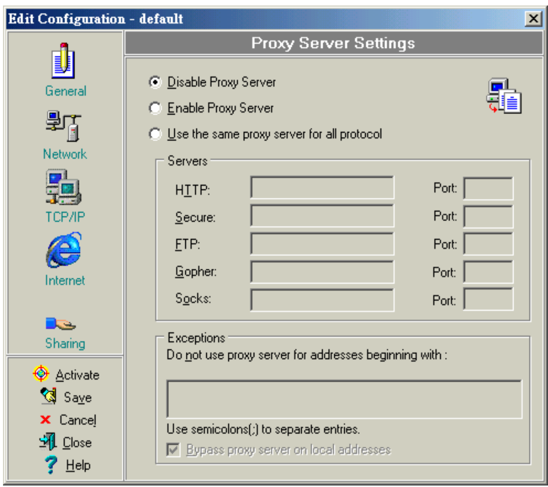
The DNS tab allows you to configure the DNS settings of the selected configuration. This tab also allows you to add a DNS server and arrange them in order of their use. You may also assign a DNS suffix for a specified DNS server.

TCP/IP settings-WINS tab

The WINS tab allows you to configure the WINS settings of the selected configuration. This tab allows you to add WINS addresses and arrange them in order of their use. This tab also allows you to enable or import LMHOST lookup and adjust the NetBIOS settings.

Internet settings

A proxy server acts as a security barrier between your internal network (Intranet) and the Internet. A proxy server restricts other people on the Internet from gaining access to confidential information on your internal network or your computer.



Disable Proxy Server – Allows you to disable the proxy server.

Enable Proxy Server – Use the Proxy server to access the Internet.

Use the same proxy server for all protocols – Specifies whether you want to use the same proxy server to gain access to the Internet using all protocols.

Servers field – Provides fields for you to type the address and port number of the proxy server you want to use to gain access to the Internet over HTTP, Secure, FTP, Gopher, and Socks protocol.

Exceptions field

Do not use proxy server for address beginning with – Type the Web addresses that do not need to be accessed through the proxy server. If you want to connect to a computer on your Intranet, make sure you type its address in this box. You may use wild cards to match domain and host names or addresses, for example, "*.company.com", "192.72.111.*".

Bypass proxy server for local addresses – This option allows you to use the proxy server for all local (Intranet) addresses.

You may gain access to local addresses easier and faster if you do not use the proxy server.

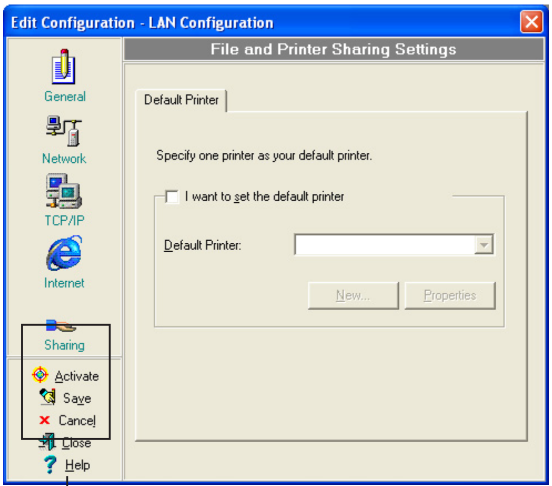
Sharing settings

I want to set the default printer– Allows you to select the default printer for printer sharing.

Default printer – Allows you to select the default printer from a list of installed printers.

Click **New** to add a new printer using the Windows® Add Printer Wizard.

Click **Properties** to display the properties of a selected printer.



Command buttons

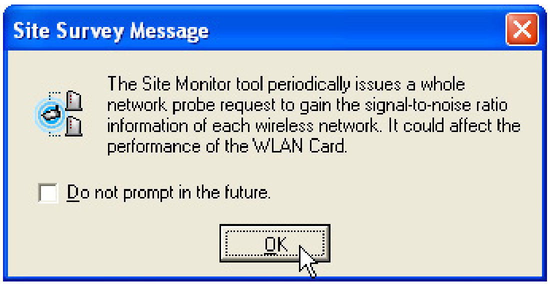
Use these buttons to activate, save, or cancel changes made in the configuration. Click **Close** to close the Edit Configuration window. Click **Help** to view the help files.

3.4 Site Monitor

The Site Monitor utility measures the signal-to-noise (SNR) values of all available wireless networks. Use this utility to determine the best placement of access points in a wireless network.

3.4.1 Launching Site Monitor

To launch the Site Monitor:

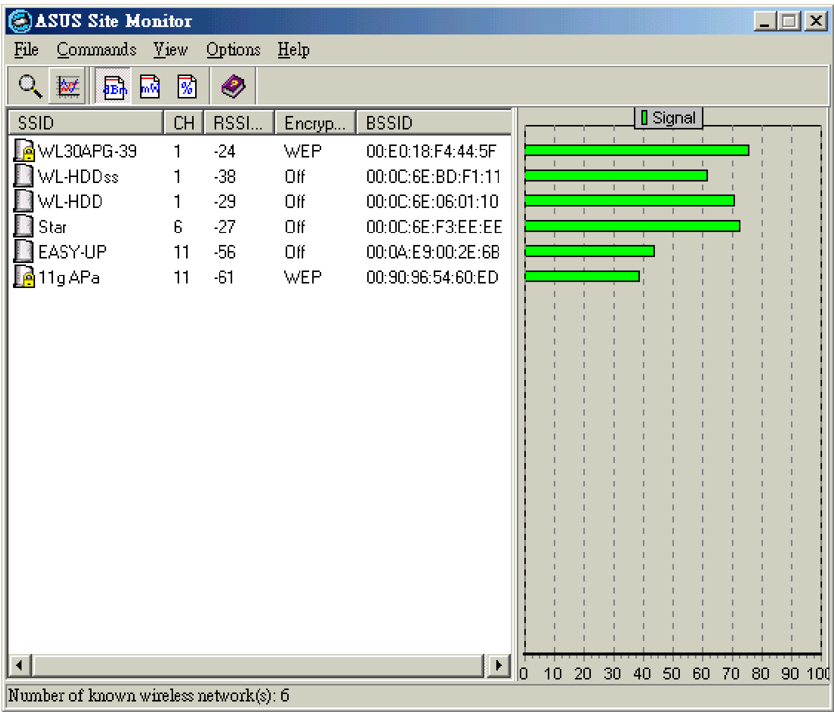


- Click the Windows® **Start** button, then select **Programs** > **ASUS Utility** > **WLAN Card** > **Site Monitor**, or
- Right-click the **Control Center** icon on the Windows taskbar, then select **Site Monitor**.

The Site Monitor survey message appears. Click **OK**.

3.4.2 Site Monitor main window

The Site Monitor main window displays the available wireless connections and the signal-to-noise (SNR) value of a selected connection.



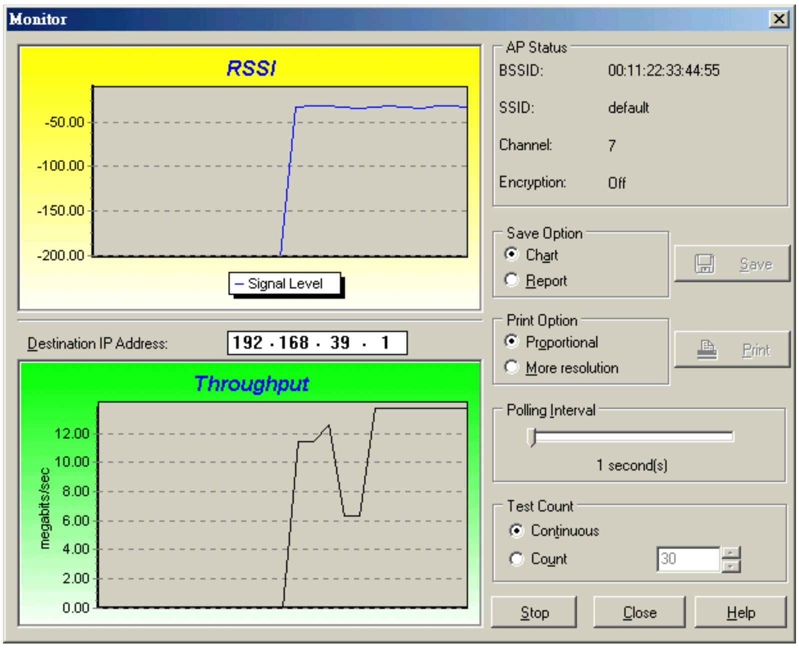
Some Access Points disable their SSID broadcasting to hide themselves from “Site Survey” or “Site Monitor”. You may join these APs if you know their SSID.

3.4.3 Monitoring a connection

To monitor a connection:

1. Select the connection from the list.
2. Click Command from the menu bar, then select monitor. You may also press <Ctrl> <M> in your keyboard.

The Monitor window appears.



The following connection parameters are displayed in graphical representation.

SNR. This indicates the quality of communications within the current network. The communication quality is based on signal level and noise level measurements. The higher the SNR, the better the connection quality.

Communication Quality. This indicates the communication quality of the Basic Service Set to which the station is connected.

Signal Level. This line specifies the average signal level of the Basic Service Set to which the station is connected.

Noise Level. Specifies the average noise level of the Frequency Channel currently used for connection.

Throughput. The Throughput graph sends a specified number of data packets to the remote host and calculates the average transmission rate in megabytes per second.

During the test, the **Start** button toggles to **Stop**. Click **Start** button to begin the link test. Click the **Stop** button at any time to stop the test.

Chapter 4

This chapter contains a troubleshooting guide for solving common problems you may encounter when using the ASUS USB Wireless LAN Adapter.

Troubleshooting

Troubleshooting

This troubleshooting guide provides answers to some common problems which you may encounter while installing and/or using ASUS Wireless LAN card products. These problems requires simple troubleshooting that you can perform by yourself. Contact the Wireless LAN Technical Support if you encounter problems not mentioned in this section.

Problem	Action
My computer does not recognize the installed ASUS USB Wireless LAN Adapter.	Verify if the ASUS USB Wireless LAN Adapter drivers are properly installed by following these instructions: 1. Open the Control Panel window from the Windows® desktop. 2. Double-click on the **System** icon. 3. *Windows® 98SE/Me users*: Select the **Device Manager** tab. *Windows® 2000/XP users*: Select the **Hardware** tab then click the **Device Manager** button. 4. Click the "+" symbol preceeding the **Network Adapters** item, then check the **ASUS 802.11 Network Adapter** item. A yellow exclamation point or a red plus sign preceeding the network adapter means that the device driver is not properly installed. Re-install the device driver following the instructions below.
A yellow exclamation point or a red plus sign appears on the ASUS 802.11b Network Adapter or ASUS 802.11g Network Adapter item.	The device driver is not properly installed. Follow these instructions to uninstall and re-install the driver. 1. Insert the Support CD into the CD-ROM drive. 2. When the ASUS Wireless LAN installation window appears, click "**Uninstall ASUS WLAN Card Utilities/Driver"** option. 3. Restart your computer and repeat the software installation following the instructions contained in this User Guide.

Troubleshooting

Problem	Action
I cannot connect to an Access Point.	• Check if the **Network Type** of the device is set to **Infrastructure** mode. • Check if the device has the same **Service Set Identifier (SSID)** as that of the AP. • Check if the device and the AP have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP. • Check if the MAC address of the device is added in the AP Authorization Table. Inquire this with your LAN administrator. • There is poor signal reception. Shorten the distance between the device and the access point.
I can connect to an Access Point but I cannot connect to the Internet.	• Check if the device and the AP have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP. • Make sure the network protocol parameters (IP address, subnet mask, gateway, and DNS) of your computer are correctly set. • Check the proxy settings of the web browser.
I cannot connect to another station with a wireless LAN device.	• Check if the **Network Type** of the device is set to **Ad-hoc** mode. • Check if the device has the same **Service Set Identifier (SSID)** with that of the other station. • There is poor signal reception. Shorten the distance between the device and the station. • Check if the device and the other station have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP.

Troubleshooting

Problem	Action
I cannot connect to other computers linked via an Access Point or Ad-hoc network.	• Check if the device and the other APs and/or clients have the same **Encryption**. If you enable WEP encryption, you must set the same WEP keys for the device and the other AP/s and/or clients. • Check the TCP/IP settings (IP address, subnet mask, gateway, and DNS) of your computer. • Enable file and printer sharing in each client computer to allow file sharing.
I always have poor link quality and low signal.	Do the following to achieve better link quality and stronger signal: • Keep the device away from microwave ovens and large metal objects to avoid radio interference. • Shorten the distance between the device and the AP/station.
Why do I got the warning "Hi-Speed USB Device Plugged Into Non-Hi-Speed USB Hub" message when I connected the ASUS USB Wireless LAN Adapter to the USB port?	This warning mesage appears when you plug the ASUS USB Wireless LAN Adapter to a USB 1.1 port. • For Windows® XP users, you need to upgrade your OS to Service Pack 1 to convert your USB ports to USB 2.0. • For Windows® 2000 users, you must install Service Pack 4 in order to convert your USB ports into USB 2.0. You can download these service packs from the Windows Update website (windowsupdate.microsoft.com)

Troubleshooting

Problem	Action
When I remove the wireless adapter from my computer running Windows 98SE, my system becomes very slow and stops responding.	• This is a limitation with computers equipped with Intel/NVIDIA USB 2.0 controller and running the newest OrangeWare USB 2.0 driver.